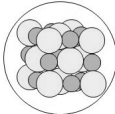




Answer by circling the letter in front of one of the offered answers. Every correct answer is worth 2 points. Every incorrect answer is worth negative 0.25 points. If the question is left unanswered it is worth 0 points. If the question is circled with pencil or if two answers are circled or the answered question is crossed out it will be marked with negative 0.25 points.

- Ana wanted to find out, if you put salt on ice whether it is going to melt faster. Which of the following question should Ana investigate?
 - Salt is aiding the ice to melt.
 - Ice and salt are in solid state of aggregation.
 - How is the salt influencing the melting of the ice?
 - Does the temperature influence the process of melting of the ice?
- The pressure of a gas depends on:
 - the force that is exerted by the collisions of the particles
 - the surface on which the force is exerted on
 - Both A and B are correct
 - None of the above
- Tony has to do a research where he needs to test several types of straws for juice which are made of different materials (plastic, paper, rubber, wax paper). He needs to determine which type of straw is the most flexible. How should Tony proceed?
 - to drink the juice using each of the straws
 - to determine how the straws bend around the glass
 - to pull simultaneously both ends of the straws
 - to put appropriate weight on each of the straws
- Real 5 Denar coin is heavier than a plastic 5 Denar coin with the same dimensions. This is so because the material that the real coin is made of is:
 - harder
 - more magnetic
 - more dense
 - more flexible
- The largest number of elements in the Periodic table of elements can be classified as:
 - metals
 - nonmetal
 - liquids
 - gases
- In which of the following groups there are only electricity conductors?
 - aluminum, copper, glass
 - sulfur, iron, copper
 - copper, aluminum, sulfur
 - brass, graphite, aluminum
- In which of the following groups there are only solid metals at room temperature?
 - aluminum, magnesium, sodium
 - iron, bromine, brass
 - carbon, lead, zinc
 - magnesium, mercury, copper
- Which of the following is a mixture?
 - smog
 - rock
 - milk
 - all the above
- Air is a mixture of which of the following gases:
 - hydrogen, oxygen and carbon dioxide
 - nitrogen, hydrogen and carbon dioxide
 - nitrogen, oxygen and carbon dioxide
 - nitrogen azot, oxygen and chlorine
- CoCO_3 is composed of which elements?
 - calcium, carbon and oxygen
 - copper, carbon and oxygen
 - oxygen, calcium and chlorine
 - carbon, cobalt and oxygen

11. Which substance is composed of diatomic molecules?
 A. CO
 B. He
 C. both CO and He
 D. neither CO nor He
12. Which of the following statements are true about the atoms of one element?
 A. They are equal among each other
 B. They are from the same type
 C. They are solid
 D. All the above
13. The chemical formula of methane is CH₄. Which of the following is true?
 A. The molecule of methane contains five atoms.
 B. The atom of methane contains two elements.
 C. Methane contains five molecules.
 D. The methane molecule contains five elements.
14. When two elements form a compound, the chemical name of that compound can end in the following:
 A. ate
 B. ite
 C. ide
 D. none of the above
15. The notation 2H₂SO₄ means that in two molecules of sulfuric acid there are:
 A. two atoms of hydrogen, one atom of sulfur and four atoms of oxygen
 B. four atoms of hydrogen, one atom of sulfur, and four atoms of oxygen
 C. four atoms of hydrogen, two atoms of sulfur and eight atoms of oxygen
 D. four atoms of hydrogen, one atom of sulfur and eight atoms of oxygen
16. The following picture depicts:

 A. sodium
 B. chlorine
 C. sodium chloride
 D. hydrogen chloride
17. Combustion is:
 A. always a reversible change
 B. always an irreversible change
 C. can be either reversible or irreversible change
 D. cannot be classified as neither reversible or irreversible change
18. How many variables should you change during one investigation/experiment?
 A. 0
 B. 1
 C. 2
 D. Depends on the experiment
19. The color of magnesium is ____, and the color of its oxide is ____.
 A. Silvery white, gray
 B. gray, silvery white
 C. silvery white, white
 D. white, silvery white
20. The product that is formed during the combustion of carbon in air is:
 A. white powder
 B. black powder
 C. transparent liquid
 D. colorless gas
21. Metal carbonates react with acids and gas is generated. You can prove the presence of this gas using:
 A. burning wooden stick
 B. red hot (glowing) wooden stick
 C. lime water
 D. filter paper
22. Which one below has basic properties?
 A. baking powder
 B. vanilla sugar
 C. pepsi
 D. boiled water

23. Which of the following properties are characteristic for bases?
- They change the litmus paper color to blue
 - They are slippery/slimy when touched
 - They have an acidic like flavor
 - They react with limestone

A. i and ii

B. i, ii and iv

C. i and iv

D. ii and iii

24. The pH value of vinegar is around:

A. 1

B. 5

C. 8

D. 13

25. What is formed when magnesium and iodine are combined:

A. magnesium hydrogeniodide

B. magnesium iodate

C. magnesium iodite

D. magnesium iodide

Period	1	Group																18
1	H 1.00784 1 +1 -1																	He 4.00260 2 2
2	Li 6.941 3 2-1	Be 9.01218 4 2-2	Group										B 10.81 5 2-3	C 12.011 6 2-4	N 14.0067 7 2-5	O 15.9994 8 2-6	F 18.9984 9 2-7	Ne 20.180 10 2-8
3	Na 22.98977 11 2-8-1	Mg 24.305 12 2-8-2	Group										Al 26.98154 13 2-8-3	Si 28.0855 14 2-8-4	P 30.97376 15 2-8-5	S 32.065 16 2-8-6	Cl 35.453 17 2-8-7	Ar 39.948 18 2-8-8
4	K 39.0983 19 2-8-8-1	Ca 40.08 20 2-8-9-2	Sc 44.9559 21 2-8-9-2	Ti 47.867 22 2-8-10-2	V 50.9415 23 2-8-11-2	Cr 51.996 24 2-8-13-1	Mn 54.9380 25 2-8-13-2	Fe 55.845 26 2-8-14-2	Co 58.9332 27 2-8-15-2	Ni 58.693 28 2-8-16-2	Cu 63.546 29 2-8-18-1	Zn 65.409 30 2-8-18-2	Ga 69.723 31 2-8-18-3	Ge 72.64 32 2-8-18-4	As 74.9216 33 2-8-18-5	Se 78.96 34 2-8-18-6	Br 79.904 35 2-8-18-7	Kr 83.798 36 2-8-18-8
5	Rb 85.4678 37 2-8-18-8-1	Sr 87.62 38 2-8-18-8-2	Y 88.9058 39 2-8-18-9-2	Zr 91.224 40 2-8-18-10-2	Nb 92.9064 41 2-8-18-12-1	Mo 95.94 42 2-8-18-13-1	Tc 98 43 2-8-18-13-2	Ru 101.07 44 2-8-18-15-1	Rh 102.906 45 2-8-18-16-1	Pd 106.42 46 2-8-18-16	Ag 107.868 47 2-8-18-18-1	Cd 112.41 48 2-8-18-18-2	In 114.818 49 2-8-18-18-3	Sn 118.71 50 2-8-18-18-4	Sb 121.757 51 2-8-18-18-5	Te 127.60 52 2-8-18-18-6	I 126.904 53 2-8-18-18-7	Xe 131.29 54 2-8-18-18-8
6	Cs 132.905 55 2-8-18-18-8-1	Ba 137.33 56 2-8-18-18-8-2	La 138.9055 57 2-8-18-18-9-2	Hf 178.49 72 1-8-32-10-2	Ta 180.948 73 1-8-32-11-2	W 183.84 74 1-8-32-12-2	Re 186.207 75 1-8-32-13-2	Os 190.23 76 1-8-32-14-2	Ir 192.22 77 1-8-32-15-2	Pt 195.08 78 1-8-32-17-1	Au 196.967 79 1-8-32-18-1	Hg 200.59 80 1-8-32-18-2	Tl 204.383 81 1-8-32-18-3	Pb 207.2 82 1-8-32-18-4	Bi 208.980 83 1-8-32-18-5	Po 209 84 1-8-32-18-6	At 210 85 1-8-32-18-7	Rn 222 86 1-8-32-18-8
7	Fr (223) 87 1-8-32-18-8-1	Ra (226) 88 1-8-32-18-8-2	Ac (227) 89 1-8-32-18-9-2	Rf (261) 104	Db (262) 105	Sg (266) 106	Bh (272) 107	Hs (277) 108	Mt (278) 109	Ds (281) 110	Rg (283) 111	Cn (285) 112	Uut (284) 113 ^u	Uuq (289) 114	Uup (289) 115	Uuh (292) 116	Uus (?) 117	Uuo (294) 118